

The Weather Whisper

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January 14-15, 2022 Heavy Snow

Kristy Carter, Meteorologist

A winter storm brought widespread moderate to heavy snow to the state Friday January 14 into Saturday January 15 causing widespread travel challenges and leaving much of central Iowa digging out of 8-12" of snow. The Des Moines Airport had the highest official snow observation during the two-day event with 14.3", but also set a new daily maximum snowfall record on 1/14/22 with 9.8", breaking the old record of 5.7" set in 1930. Other notable totals that round out the top 5 include 13" in Ringsted, 12.9" in Polk City, 12.6" in Ames, and 12" in Algona and Boone. The map above (Figure 1) shows the observed snowfall totals from the 2-day event, courtesy of the Iowa Environmental Mesonet.

By 6AM Saturday morning, road conditions were in terrible shape with many tow bans in effect and roads partially to completely covered across much of the state. Many areas in and around the Des Moines metro started the weekend with "Travel Not Advised" designations due to a combination of the snowfall accumulations and "wet" snow (partially melted snow) early in the event that bonded to roadways (see Figure 2).

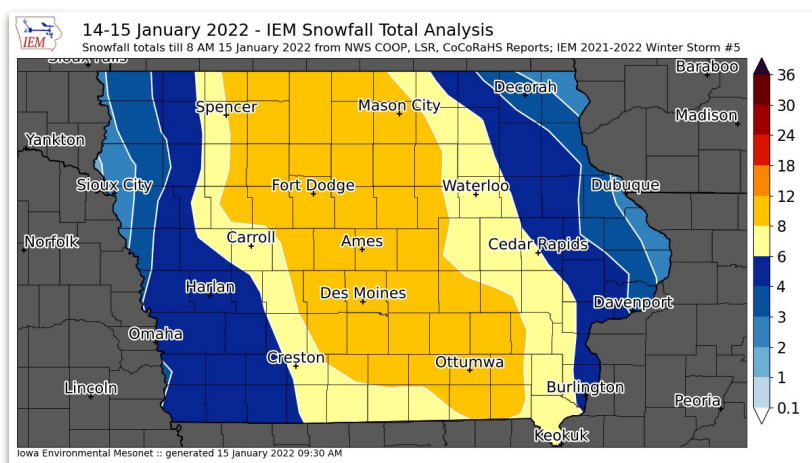


Figure 1 - Observed Snowfall Accumulations from Jan 14-15, 2022. Graphic from the Iowa Environmental Mesonet.

This “wet” snow created some slushy conditions underneath the ultimately 10-12+” of snow received by areas in and around the Des Moines metro. As temperatures dropped below freezing Friday night into Saturday morning, this slushy layer froze to roadways making it difficult for road crews to clear, especially with snowfall rates reaching 1 to 1.5 inches per hour at times on Friday evening and snow lingering into the early morning hours Saturday. After the snow finally ended Saturday morning, temperatures fell through the day reaching the single digits just above to just below zero by late evening.

The forecast leading up to this event remained fairly consistent with snow totals increasing between Wednesday afternoon January 12 and early Thursday morning January 13 across parts of central Iowa, but otherwise the event panned out as advertised with a few forecast caveats. Saturation occurring early Friday morning did produce a quick burst of snow with some mixed precipitation in central Iowa ahead of the main event with a lull in precipitation during the midday hours. Dry air near the surface and warmer temperatures sticking around longer did lead to more rain and a mix of rain/sleet/snow in the southwest and thus a sharper gradient in snowfall totals, but still reaching about 4-7”. There was certainly no shortage of wet, heavy snow to shovel after this event!

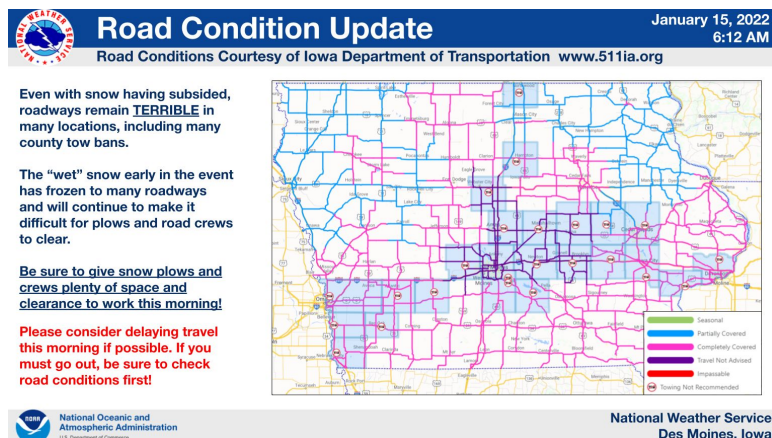
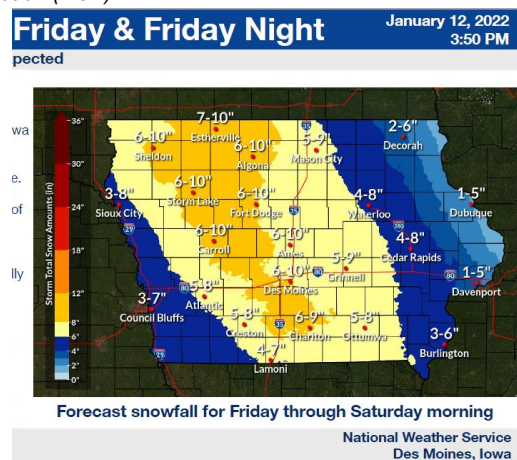


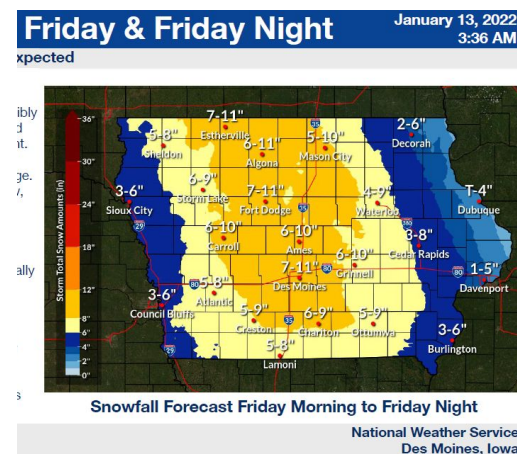
Figure 2 - Road condition update from 6:12 AM Saturday January 15 sent out by NWS Des Moines via social media using road conditions courtesy of the Iowa Department of Transportation (DOT).

Figure 3 - Forecast graphics from NWS Des Moines leading up to the event.

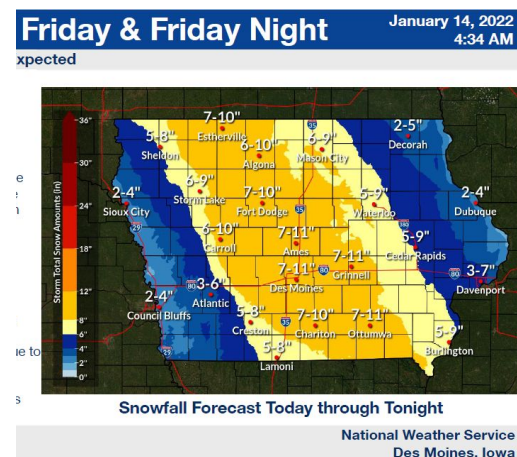
Top - Wednesday January 12, 3:50pm



Middle - Thursday January 13, 3:36am



Bottom - Friday January 14, 4:34am



NWS Director's Award 2021 Presented to NWS Des Moines

Brooke Hagenhoff, Meteorologist

At the end of 2021, NWS Des Moines received the NWS Director's Award "for exemplary forecasts and decision support services to partners and the public across Iowa and Illinois during the historic August 10, 2020 derecho" alongside NWS Chicago, NWS Davenport, and the Aurora CWSU. This is the inaugural year for the Director's Award, which seeks to recognize teams or individuals for accomplishments of high significance in accomplishing NWS goals and improving service to the public. The award ceremony was held virtually and recognized individuals and offices across the country that have performed exemplary work in the past year. We were honored to be included in such good company.



Dr. Louis Uccellini, Director of the NWS, and Mary Erickson, Deputy Director of the NWS, at the Virtual award ceremony



STAFF SPOTLIGHT

Amanda Viken

Areas of Interest

Fire Weather, Marine Weather, and Hydrology

Background

Amanda is currently a Senior in Meteorology at Iowa State University and began her journey with the NWS as the 2021 Pathways Summer Intern at NWS Medford, OR. Once the fall semester began at ISU, Amanda began with NWS Des Moines. The Pathways Program allows students to gain experience in the NWS with a direct path towards future full-time employment upon graduation. Outside of work Amanda likes to chase sunsets & waterfalls, spend time with family and friends, and collect vinyls. Amanda's favorite thing about the NWS is that each day is never the same and being able to have meaningful relationships with our partners.



Pathways Intern



8 Months of Service

On the Cover:

Snow covered trees on the night of January 14th, with nighttime skies illuminated by the reflection of city lights. Photo Credit: Brooke Hagenhoff



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